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ABSTRACT

This 60-item questionnaire was designed to gather general background information from students who had used the Harvard Project Physics curriculum. The instrument includes three 20-item subscales: (1) attitude toward physics, (2) career interest, and (3) student characteristics. Items are multiple choice (5 options), and the introductory material includes directions for using machine readable answer sheets. Forty-five minutes are required to administer the questionnaire. (SD)

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STUDENT QUESTIONNAIRE

This questionnaire is designed to find out some information about the physics course you are taking. There are also several questions about your college and career plans. Please answer all questions as accurately as you can. Put your answers on the enclosed Digitek answer sheet.

Write your name and your 5-digit identification number in the spaces provided on the answer sheet. We are also asking that you write in your permanent home address and parent or guardian name in the spaces provided.

Thank you for your assistance.

This questionnaire was developed by Wayne W. Welch and Andrew Ahlgren as part of the evaluation program of Harvard Project Physics, 1968.

SE020 516

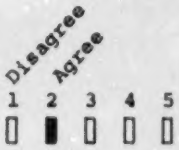
PART 1

The following statements were written by students who have recently completed a physics course. We are anxious to find out what you think about their statements. On the answer sheets provided please indicate your reaction to their statements by marking

1 if you DISAGREE with the statement.

2 if you AGREE with the statement.

Example:



I. I have taken a year of chemistry in high school.

		Disagree	Agree
1.	Most of the labs were not that informative for the amount of time spent on them.	1	2
2.	Last year I was hesitant to take physics because so many people told me how tough it was.	1	2
3.	I think this physics course is designed in such a way that even those who have little background in mathematics can gain much from the course.	1	2
4.	This course has made physics interesting to me.	1	2
5.	The text is well written.	1	2
6.	I don't think I have a good enough math background for this class.	1	2
7.	The course has not been the drag I expected physics to be.	1	2
8.	The labs are fun.	1	2
9.	I think learning about the men and women who made physics grow helped to make the course more interesting.	1	2
10.	This physics course was one of the most interesting courses I have taken in high school.	1	2
11.	I would recommend this physics course to my friends.	1	2
12.	The book was really enjoyable to read.	1	2
13.	Primarily as a result of this physics course, I plan to take another physics course in college.	1	2
14.	Our class finished the text.	1	2
15.	I plan to major in physics in college.	1	2
16.	Physics is one of the most difficult courses I have taken in high school.	1	2
17.	No matter how you look at it, physics has to be a difficult course.	1	2
18.	I guess physics is all right if you like that sort of thing... to me it's <u>just</u> filling one of my pre-college requirements.	1	2
19.	I hope they don't change the course too much.	1	2
20.	In college, I plan to major in science, but not physics.	1	2

PART 2

In the following statements, you are to mark on the answer sheet according to the numbers in the parentheses, the one response that best applies to you.

21. I took the College Board Physics Achievement Test. (1) no (2) yes
22. I plan to attend a four-year college. (1) no (2) yes
23. I am taking either art or music this year. (1) no (2) yes
24. I am taking biology this year. (1) no (2) yes
25. I am taking mathematics this year. (1) no (2) yes
26. I am taking a secretarial course this year. (1) no (2) yes

	(1)	(2)	(3)	(4)
27. I am currently in grade	9	10	11	12

28. The main textbook we used in the course this year was:
    1. An Introduction to Physics, published by Harvard Project Physics (HPP)
    2. Physics, published by Physical Science Study Committee (PSSC)
    3. Modern Physics, by Dull, Metcalfe and Williams
    4. some other text

(1) (2) (3) (4)

29. Which part of this physics course did you enjoy the most?
    1. laboratory work
    2. text
    3. film loops and films
    4. supplementary reading
    5. student workbooks

(1) (2) (3) (4) (5)

30. From which part of this physics course (from the list above) did you learn most effectively? (1) (2) (3) (4) (5)

31. How often did you (or your lab group) make measurements from short, self-contained film loops?
    1. no measurements
    2. once or twice
    3. three or four times
    4. five or more times

32. In what size group did you view film loops?
    1. did not view film loops
    2. always the entire class
    3. usually the entire class, occasionally in groups of 4 or less
    4. usually in small groups, occasionally the entire class
    5. always in small groups

33. How many self-teaching programmed instruction booklets did you work through?
    1. none
    2. one or two
    3. three or four
    4. five or more

34. How were programmed booklets distributed?
    1. We did not use programmed booklets.
    2. They were assigned to everyone by the teacher.
    3. They were assigned only to certain students by the teacher.
    4. They were announced by the teacher and requested by the students.

35. How many laboratory exercises (experiments) did you do?
    1. none
    2. about one experiment per unit
    3. about one experiment per chapter
    4. about once a week
    5. more than once a week

36. In what size group did you usually do lab work?
    1. individually
    2. in pairs
    3. in threes
    4. in fours
    5. in groups larger than four

37. How often did the teacher present transparencies on an overhead projector?
    1. never
    2. about once per unit
    3. about once per chapter
    4. frequently

38. How available were the Physics Readers?
    1. Each student had his own.
    2. They could be checked out overnight.
    3. They had to be read at school.
    4. The teacher distributed them on a regular schedule.
    5. Our school did not have anything called a Physics Reader.

(If 5 is your answer to item 38, do not answer items 39 and 40.)

39. How did you report your reading in the Reader to your teacher?
    1. check-off list
    2. tests on articles
    3. written reports
    4. oral reports to the class
    5. no official reporting system

40. How much reading were you required to do in the Physics Reader?
    1. there was no required reading
    2. about one article per unit
    3. about three articles per unit
    4. about one article per week
    5. more than one article per week

PART 3*

The purpose of the following questions is to find out some of the characteristics of students enrolled in physics courses. For each question select the one answer that best describes you.

41. How many books does your family have in your home?
    1. less than five books
    2. a few books
    3. one bookcase full
    4. several bookcases full
    5. a large library

42. How much reading do you do (outside of school work)?
    1. Read everything that looks interesting.
    2. Read during a large part of my free time.
    3. Read occasionally.
    4. Read seldom from lack of opportunity.
    5. Read seldom, from choice.

43. How much time do you spend in serious study not counting your school work?
    1. none
    2. very little
    3. once in a while
    4. quite a bit
    5. most of my spare time

44. During the past two years, how much actual opportunity have you had to express yourself in some form of creative activity (art work, your own science project, etc.)?
    1. great opportunity
    2. some opportunity
    3. little opportunity
    4. very little opportunity
    5. no opportunity

45. How often do you discuss your occupational choice with your parents or other adults?
    1. never
    2. seldom
    3. occasionally
    4. frequently

46. How do you feel about school?
    1. Like it very much.
    2. Like it most of the time.
    3. Just accept it as necessary.
    4. Am often a little unhappy with it.
    5. Dislike it and will be glad to finish.

47. Compared to others in your classes, how often do you question your teachers on subject matter?
    1. considerably more often than average
    2. somewhat more often than average
    3. about average
    4. somewhat less than average
    5. considerably less than average

*Reproduced from the Biographical Inventory, Form, M. Institute of Behavioral Research in Creativity.

48. Where do you sit in the classroom when you have a choice?
    1. close to the front where I can see and hear everything
    2. wherever my friends are sitting
    3. it doesn't matter where I sit
    4. in the back
    5. near a window

49. How do you compare with all other students in your grade in school marks?
    1. I am much above average.
    2. I am somewhat above average.
    3. I am about average.
    4. I am somewhat below average.
    5. I am much below average.

50. How often when working on a paper or project do you do it over and over until it is as good as you can make it?
    1. very rarely, if ever
    2. rarely
    3. occasionally
    4. frequently
    5. very frequently

51. How would you rate yourself in following through with something in spite of difficulties and distractions?
    1. well above average
    2. above average
    3. about average
    4. slightly below average
    5. well below average

52. Which one of the following characteristics would you most like to have or develop in your life?
    1. skillful user of practical knowledge (such as a doctor)
    2. wealth and power (such as an owner of a successful company)
    3. creativity (such as an artist or an inventor)
    4. well-liked and personable (such as a politician)
    5. intellectual (such as a philosopher)

53. How important is it to you to be intelligent?
    1. extremely important
    2. important
    3. somewhat important
    4. unimportant
    5. very unimportant

54. How do you compare with all other students in your grade in creativity and imagination?
    1. I am much above average.
    2. I am somewhat above average.
    3. I am about average.
    4. I am somewhat below average.
    5. I am much below average.

55. How often have you been an organizer or group leader?
    1. I have never considered myself as an organizer or a leader of groups and have preferred to remain in the background.
    2. I have sometimes organized small groups (such as study or discussion groups) and considered myself at the time to be the leader of the group.
    3. I have been fairly active in student government, or community organizations and have acted as an influence in seeing that goals are accomplished.
    4. I have been quite active in student government and organizations, or community organizations. I have been the prime mover in setting up goals or projects and seeing that they reach completion.

56. How interested are you in art (drawing, painting, sculpture, ceramics, architecture, photography)?
    1. No real interest or achievement in art.
    2. Some interest in art. I have done original work.
    3. A moderate interest in art. I have done some original work which was exhibited in my school or by a local organization.
    4. A deep interest in art. I have spent a great deal of time in doing original work and have entered my work in various exhibits and contests.
    5. A very deep interest in art. I have spent a great deal of time in doing original work that has been exhibited. I have won one or more awards in competition.

57. How interested are you in science?
    1. I have little or no interest in science and complete only necessary classwork.
    2. I have some interest in the sciences. I spend some of my free time working on projects or papers beyond what is required for classwork.
    3. I have quite a bit of interest in science. I spend a lot of my free time working on extra projects and/or papers. I have entered one or more projects in a Science Fair or similar competitions.
    4. I have a strong interest in science. I devote much of my time working on projects or papers. My work has been recognized by one or more prizes or awards.
    5. I have a very strong interest in science. I spend most of my time working on projects or papers. My work has been published or publicly recognized for its contribution to the field.

58. How good are you in the performing arts (dancing, acting, etc.)?
    1. I have no interest in this area and do not participate in any such activities.
    2. I participate in school organized productions in a minor way.
    3. I participate in school organized productions and play a major role in either plays or recitals.
    4. I am active in productions within the community as well as my school and have won recognition for my performances.
    5. I am very active in this area. I performed in both school and community productions. In competition I have won recognition or awards for my performance.

59. How good are you in music?
    1. I have never had any interest or ability in music.
    2. I have been active in school bands or musical groups.
    3. I have been active in school or community groups and have been recognized as a soloist.
    4. I have been very interested in music and have entered competition (either as a performer or as a composer of an original piece of music or score).
    5. I have a great deal of interest in music. I have entered competition and have won one or more prizes (either for my own performances or for the production of an original piece of music).

60. How good are you at writing (stories, poems, themes, etc.)?
    1. My ability in writing is limited. I have only completed necessary classwork.
    2. I have some ability in writing. I have done some writing on my own.
    3. I have a real interest in writing and have had some original work published in my school paper, annual or literary magazine.
    4. I have a strong interest in writing. My original work has been published in school or community papers. I have entered my work in state or national competition.
    5. I have a very strong interest in writing. My original work has won one or more prizes in competition and has been published in literary journals (other than in my school).